## REMARKS/ARGUMENTS

Claims 1, 2, 5-8, and 11-13 are pending in the present application.

This Amendment is in response to the Office Action mailed January 5, 2010. In the Office Action, the Examiner rejected claims 1-2, 5-8, and 11-13 under 35 U.S.C. §103(a). Applicant has amended claims 1, 7, and 13. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

## Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1-2, 5-8, and 11-13 under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 2002/0120574 issued to Ezaki ("<u>Ezaki</u>") in view of U.S. Patent No. 7,224,819 issued to Levy ("<u>Levy</u>") in view of U.S. Patent No. 6,526,508 issued to Atkins, et al. ("<u>Atkins</u>"). Applicant respectfully traverses the rejection and submits that the Examiner has not met the burden of establishing a *prima facie* case of obviousness.

To establish a *prima facie* case of obviousness, certain basic criteria must be met. For instance, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. <a href="MPEP §2143">MPEP §2143</a>. Applicant respectfully submits that the combined teachings do not address each and every limitation, and thus no *prima facie* case of obviousness has been established.

Furthermore, the Supreme Court in Graham v. John Deere, 383 U.S. 1, 148 USPQ 459 (1966), stated: "Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined." MPEP 2141. In KSR International Co. vs. Teleflex, Inc., 127 S.Ct. 1727 (2007) (Kennedy, J.), the Court explained that "[o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." Emphasis Added. The Court further required that an explicit analysis for this reason

must be made. "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." <u>KSR</u>, 127 S.Ct. at 1741, quoting <u>In re Kahn</u>, 441 F.3d 977, 988 (Fed. Cir. 2006).

In the instant case, Applicant respectfully submits that the combined teachings of the cited prior art references do not teach or suggest all the claim limitations. Furthermore, Applicant respectfully submits that there are significant differences between the cited references and the claimed invention and thus, there is no apparent reason to combine the known elements in the manner as claimed. No prima facie case of obviousness has been established.

Ezaki, Levy, and Akins, alone or in combination, do not disclose, at least, (1) generating access control information and a control word based on subscriber information, the access control information including CAT, entitlement control message (ECM) and entitlement management message (EMM), the access control information being separate from the control word; (2) the use control metadata including copy control information (CCI), broadcasting flag (BF) and retention information (RI), wherein the content ID is abstracted and used for determining whether a content is an unlawful broadcasting content when the broadcasting content is distributed unlawfully, or the content ID is abstracted and used for determining whether a content that are broadcasted currently is authentic or not after monitoring; and (3) a scrambling means for scrambling the re-multiplexed signal by using the control word, as recited in amended independent claims 1, 7, and 13.

The Examiner alleges that <u>Ezaki</u> discloses "generating access control information and a control word based on subscriber information, the access control information including CAT, entitlement control message (ECM) and entitlement management message (EMM)," as recited in claims 1, 7, and 13, citing <u>Ezaki</u>, paragraph [0172]. Applicant respectfully disagrees and submits that Ezaki, paragraph [0172] merely states:

"The rights processing metadata contains an ECM (Entitlement Control Message) and an EMM (Entitlement Management Message). A decryption section 482 decrypts the EMM using a master key Km recorded on the BS-CAS IC card in order to obtain a work key and contract information. Next, a decryption section 481 decrypts the-ECM using the work key in order to obtain a scrambling key

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Ksc. Also, the contract information obtained by the decryption section 482 is stored in a PPV data storage section 483." (Ezaki, par. [0172]).

There is nothing in this cited portion of <u>Ezaki</u> which discloses "generating <u>a control word</u> based on subscriber information." *Emphasis Added*.

Additionally, since there is no teaching of "a control word," <u>Ezaki</u> also fails to disclose "a scrambling means for scrambling the re-multiplexed signal <u>by using the control word</u>" as recited in the claims. While the Examiner alleges that <u>Ezaki</u>, paragraph [0092], discloses this element, this portion of <u>Ezaki</u> merely states:

"The CAS processing section 12 descrambles a scrambling process applied to broadcast content on the basis of a contract concerning CAS (Conditional Access System) exchanged with the content distributor. For digital broadcasting in Japan, a common scrambling method called "Multi2" is adopted for both BS and CS. However, since the CAS process itself is not related to the scope and spirit of the present invention, no further description is given here." (Ezaki, par. [0092])

There is no teaching of "a control word" or "scrambling by using the control word" in Ezaki.

In the Office Action, the Examiner further alleges that the ECM and EMM in Ezaki represent types of control words (Office Action, page 6). Applicant respectfully submits that in the present invention, access control information including CAT, ECM and EMM is separate from the control word (See, for example, Specification, Figure 2, for further details). In order to clarify this aspect of the invention, independent claims 1, 7, and 13 have been amended to recite: "the access control information being separate from the control word," Accordingly, Applicant submits that the ECM and EMM cannot correspond to "the control word," as delineated in the claims because "the access control information" includes the ECM and EMM and "the access control information [is] separate from the control word."

Further, <u>Ezaki</u> merely discloses the rights processing metadata in <u>Ezaki</u> contains an ECM (Entitlement Control Message) and an EMM (Entitlement Management Message) (<u>Ezaki</u>, par. [0172]). In contrast, the claims recite "the access control information including <u>CAT</u>, entitlement control message (ECM) <u>and</u> entitlement management message (EMM)." *Emphasis* 

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Added. Given that there is no teaching in <u>Ezaki</u> of the rights processing metadata including CAT, the rights processing metadata cannot correspond to the "access control information."

In the Office Action, the Examiner admits that Ezaki and Levy fail to teach "the access control information including CAT, entitlement control message (ECM) and entitlement management message (EMM)" (Office Action, page 4). However, the Examiner alleges that Akins teaches this element of the claims in Figure 7. Applicant respectfully submits that Akins merely discloses the packets in PID 1 705(c) having as their contents a conditional access table (CAT) 710, which lists the PIDs of other packets that contain EMMs (Akins, col. 19., lines 4-7; Figure 7). As illustrated in Figure 7, the PID 1 705(c) cannot be an access control information including CAT, ECM and EMM because the PID 1 705(c) merely includes the CAT. In other words, there is no teaching of an "access control information" that includes "CAT, ECM and EMM" because the CAT 710 merely lists the PIDs of other packets that contain EMMs such as EMM packet 705(d) (Akins, col. 19., lines 7-8; Figure 7) and the CAT 710 is not included in information which further includes ECM and EMM.

Moreover, as admitted by the Examiner, Ezaki and Levy fail to disclose, inter alia, 
"wherein the content ID is abstracted and used for determining whether a content is an unlawful 
broadcasting content when the broadcasting content is distributed unlawfully, or the content ID is 
abstracted and used for determining whether a content that are broadcasted currently is authentic 
or not after monitoring," as recited in independent claims 1, 7, and 13. However, the Examiner 
alleges that Akins teaches this element of the claims citing column 13, lines 18-40 (Office Action, 
page 4. Applicant respectfully disagrees and submits that nothing in the cited portions of Akins 
discloses, inter alia, a content ID being abstracted, as recited in the claims. Instead, the cited 
portion of Akins discloses the authentication of global broadcast messages with respect to ECMs 
and EMMs. More specifically, Akins, column 13, lines 18-40 merely states:

## "Authentication of Global Broadcast Messages

A global broadcast message is one which is not addressed to any individual DHCT 333 or to any group of DHCTs 333. In a preferred embodiment, global broadcast messages accompany instances of services and contain information that is relevant to the instance they accompany. Consequently, the encryption and authentication techniques used in the global broadcast messages must permit rapid decryption and authenticity checking. One example of a global

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broadcast message is the ECM. Other examples are the different types of global broadcast authenticated messages, or GBAMs. As with ECMs, it is necessary to prevent global broadcast messages from being spoofed, and it is done in the same fashion as with the ECMs. More specifically, the digest is made using some or all of the MSK together with the content of the global broadcast message. The MSK thus functions as a shared secret between the entitlement agent and DHCT 333. When EMM manager 407 receives the global message, it makes a digest using the contents of the received message and the MSK and responds to the received message only if the digest agrees with the one contained in the message. An advantage of using a digest made with the MSK to authenticate the global broadcast message is that the digest may be both made and checked very quickly." (Akins, col. 13, lines 18-40).

Therefore, claims 1, 7, and 13 and claims dependent thereon are distinguishable over the cited prior art reference. Accordingly, the rejection under 35 U.S.C. §103(a) should be withdrawn.

Appl. No. 10/724,286 Amdt. Dated April 27, 2010

Reply to Office Action of January 5, 2010

## Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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